



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,426	03/29/2002	Juha Pihlaja	297-010894-US (PAR)	7015
2512	7590	09/14/2006	EXAMINER	
PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			HALIYUR, VENKATESH N	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

87

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/089,426	PIHLAJA, JUHA	
	<b>Examiner</b>	<b>Art Unit</b>	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 March 2002.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. Claims 1-7 are pending in the application.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delprat et al. [US Pat: 5,617,412] in view of Garcia-Luna-Aceves et al [US Pat: 6,788,702].

**Regarding claims 1-2, Delprat et al. in the invention of "Frame/Multiframe Structure FDMA System and Corresponding Signal" disclosed a method for providing wireless point-to-multipoint connections having an access point (base station, SB of Fig1) using full-duplex mode and terminals (mobile stations, SMs of Fig 1) using half-duplex mode characterized in that, (col 6, lines 14-18)**

- each of a plurality of the terminals has an equipment identifier (Fig4, unit1,unit 2, col 8,lines 11-19, Fig 1, SM11,SM22, col 6, lines 4-13)

Art Unit: 2616

- each of said plurality of the terminals is arranged to classify itself as belonging to a first group of terminals (**group 21 of Fig 1**) or a second group (**group 22 of Fig 1**) of terminals based on said equipment identifier according to a predefined rule (**based on frequency, col 6, lines 4-33**); and
- the access point is arranged to send a first broadcast message to said first group of terminals and a second broadcast message to said second group of terminals (**col 2, lines 43-47, col 3, lines 58-65**), but fails to disclose that the access point (base station) is arranged to schedule the transmission period of at least one terminal of said second group to overlap at least partly with the transmission period of said first broadcast message. However Garcia-Luna-Aceves et al. in their invention of "Protocol For Neighborhood Established Transmission Scheduling" disclosed a method to schedule overlapping data transmissions in a wireless network having nodes A-E (**node B listens during overlapping data transmissions scheduled from node A to node B, and from node D to node E and from node C to node A, Fig 4, col 16, lines 61-67, col 17, lines 1-42**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission period as taught by Garcia-Luna-Aceves et al. to include in the system of Delprat et al. to provide scheduling of access point transmission period of at least one

terminal of said second group to overlap at least partly with the transmission period of said first broadcast message. One is motivated as such to schedule of listening and transmission periods of first group, second group and access point.

**Regarding claim 3**, Delprat et al. disclosed that access point of a point-to-multipoint wireless link system (**base station, SB of Fig 1**), characterized in that

- the access point is arranged to send a first broadcast message in a frame to a first group (**police department group**) of terminals and a second broadcast message in said frame to a second group of terminals (**fire department group**) (**col 3, lines 12-20**), but fails to disclose that the access point is arranged to schedule the transmission period of at least one terminal of said second group to overlap at least partly with the transmission period of said first broadcast message, However Garcia-Luna-Aceves et al. disclosed a method to schedule overlapping data transmissions in a wireless network having nodes A-E (**node B listens during overlapping data transmissions scheduled from node A to node B, and from node D to node E and from node C to node A, Fig 4, col 16, lines 61-67, col 17, lines 1-42**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission period as taught by Garcia-Luna-Aceves et al. to include in the system of Delprat et al. to provide scheduling of access point transmission period of

at least one terminal of said second group to overlap at least partly with the transmission period of said first broadcast message. One is motivated as such to schedule of listening and transmission periods of first group, second group and access point.

**Regarding claim 4**, Delprat et al. disclosed that terminal of a point-to-multipoint wireless link system, which terminal has an equipment identifier (**Fig4, unit1, unit 2, col 8, lines 11-19, Fig 1, SM11, SM22, col 6, lines 4-13**), characterized in that the terminal is arranged to classify itself as belonging to a first group of terminals (**group 21 of Fig 1**) or a second group of terminals (**group 22 of Fig 1**) based on the equipment identifier according to a predefined rule (**based on frequency, col 6, lines 4-33**).

**Regarding claim 5**, Delprat et al. disclosed that the terminal is arranged to perform the classification based on the value of the least significant bit of the identifier (**Fig 4, col 8, lines 11-24**).

**Regarding claim 6**, Delprat et al. disclosed a method for providing wireless point-to-multipoint connections between an access point (**base station, SB of Fig1**) and a plurality of terminals (**mobile stations, SMs of Fig 1**), characterized in that

- the terminals are grouped into a first group (**groups 21 of Fig 1**) and a second group (**groups 22 of Fig 1, col 6, lines 4-13**),
- during a transmission frame, the access point sends a first broadcast message to terminals in the first group and a second broadcast

message to terminals in the second group (**col 2, lines 43-47, col 3, lines 58-65**), but fails to disclose that at least one of the terminals of the second group is scheduled to transmit during at least a part of the transmission period of said first broadcast message. However Garcia-Luna-Aceves et al. disclosed a method to schedule overlapping data transmissions in a wireless network having nodes A-E (**node B listens during data transmissions scheduled from node A to node B, and from node D to node E and from node C to node A, Fig 4, col 16, lines 61-67, col 17, lines 1-42**). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission period as taught by Garcia-Luna-Aceves et al. to include in the system of Delprat et al. to provide at least one of the terminals of the second group is scheduled to transmit during at least a part of the transmission period of said first broadcast message. One is motivated as such to schedule of listening and transmission periods of first group, second group and access point.

**Regarding claim 7**, Delprat et al. disclosed that at least one of the terminals of the first group is scheduled to transmit during at least a part of the transmission period of said second broadcast message (**col 6, lines 34-67, col 7, lines 1-34**).

Art Unit: 2616

**Conclusion**

4. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

W 09/06/06

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER